DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES OFFICE ENGINEER, MS 43 1727 30TH STREET P.O. BOX 168041 SACRAMENTO, CA 95816-8041 FAX (916) 227-6214 TTY 711



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October 3, 2008

11-SD-15-M41.8/R48.6 11-2T0814 ACIM-015-4(203)N CMLN-6211(052)N

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN DIEGO COUNTY IN AND NEAR ESCONDIDO AT VARIOUS LOCATIONS FROM 0.1 KILOMETER SOUTH OF HIGHLAND ROAD OVERCROSSING TO 0.2 KILOMETER NORTH OF NINTH AVENUE UNDERCROSSING.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on October 16, 2008.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book, the Federal Minimum Wages with Modification Number 13 dated 9-12-08, and provide a copy of the Information Handout.

In the Notice to Bidders, under "Special Provisions and Project Plans may be viewed at:," the telephone number in item 4 is revised as follows:

"4. Department of Transportation, Bid Documents 1120 N Street, Room 0200, Mail Station 26 Sacramento, CA 95814
Telephone no.: (916) 654-4490"

Project Plan Sheets 10, 27, 91, 108, 110, 115, 118, 119, 120, 128, 129, 137, 139, 140, 143, 147, 148, 149, 150, 151, 178, 179, 180, 181, 182, 183, 184, 214, 266, 362, 363, 364, 365, 367, 369, 400, 434, 504, 534, 539, and 673 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 28, 29, 85, 125, 126, 516, 517, and 533 are deleted.

In the Special Provisions, "SECTION 1 SPECIFICATIONS AND PLANS," is revised as attached.

In the Special Provisions, Section 5-1.06, "PROJECT INFORMATION," is revised as attached.

In the Special Provisions, Section 10-1.02, "ORDER OF WORK," the second paragraph is deleted.

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In the Special Provisions, Section 10-1.02, "ORDER OF WORK," subsection "EMERGENCY CALL BOXES," the thirteenth paragraph is replaced with the following paragraphs:

"The work shall be performed in conformance with the stages of construction shown on the plans. The Contractor may submit a proposal to proceed with work in subsequent stages if the work does not conflict with work in preceding stages.

The proposal must include:

- 1. Revised staging plans
- 2. Revised schedule including revised staging, showing satisfactory progress is maintained in preceding stages
- 3. Statement of cost savings"

In the Special Provisions, Section 10-1.30, "TEMPORARY RAILING," the third paragraph is revised as follows:

"Exposed surfaces are to be freshly coated and may display your name or logo in conformance with Section 12-3.08, "Temporary Railing (Type K)," of the Standard Specifications."

In the Special Provisions, Section 10-1.39, "EROSION CONTROL (TYPE D)," is revised as attached.

In the Special Provisions, Section 10-1.43, "WILLOWS CUTTINGS (PLANT GROUP W)," is deleted.

In the Special Provisions, Section 10-1.98, "METAL BEAM GUARD RAILING," subsection "ALTERNATIVE CRASH CUSHION SYSTEM," and subsection "TERMINAL SYSTEM (TYPE CAT)," are added after the fourth paragraph, respectively, as attached.

In the Special Provisions, Section 10-2.01, "GENERAL," is revised as attached.

In the Special Provisions, Section 10-2.04, "HIGHWAY PLANTING," is revised as attached.

In the Special Provisions, Section 10-2.05, "IRRIGATION SYSTEMS," the subsection "WATER METER," is added after the subsection "THRUST BLOCK," as attached.

In the Bid book, in the "Bid Item List," Items 7, 9, 15, 78, 121, 157, 187, 196, 197, 199, 201, 205, 206, 209, 210, 212, 217, and 227, are revised, Items 264, 265, 266, 267, 268, 269, 270, 271, and 272 are added and Items 3, 4, 31, 32, 55, 64, 82, 148, 149, 179, 190, 191, 192, 232, 253, 254 and 263 are deleted as attached.

To Bid book holders:

Replace pages 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, and 16 of the Bid Item List in the Bid book with the attached revised pages 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, and 16 of the Bid Item List. The revised Bid Item List is to be used in the bid.

Attached is a copy of the additional Information Handout.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This office is sending this addendum by GSO overnight mail to Bid book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the Contractors' use on the Web site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

ROBERT E. TRAVIS, Chief Office of Plans, Specifications & Estimates Division of Engineering Services - Office Engineer

Attachments

SECTION 1 SPECIFICATIONS AND PLANS

The project plans for this project are not considered to be complete to construct the work anticipated by the contract. Design of the project, including preparation of final project plans, will be completed in phases after approval of the contract in conformance with the following:

Phase I shall consist of the following work:

Title sheet

Typical Cross Sections

Key Map and Line Index

Layout

Profile

Profile and Superelevation Diagram

Temporary Water Pollution Control Quantities

Temporary Water Pollution Control Details

Erosion Control Quantities

Contour Grading and Drainage Plan (Portion)

Drainage Profiles

Drainage Details

Drainage Quantities

Utility Plan

Utility Details

Utility Quantities

Stage Construction

Stage Construction Quantities

Construction Area Signs and Quantities

Traffic Handling Plan

Traffic Handling Details and Quantities

Stage Construction and Traffic Handling Plan

Pavement Delineation Quantities

Sign Quantities

Summary of Quantities

Retaining Wall Plan

Log of Test Borings (for Retaining Walls)

Complete design of Phase I, including final plans for Phase I, is included in the project plans for this project.

Phase II shall consist of the following work:

Temporary Lighting

Temporary Traffic Monitoring Station

Temporary Ramp Metering System

Temporary Ramp Meter System

Erosion Control Plan

Signal and Lighting (Portion)

Pavement Delineation and Sign Plan (Portion)

Pavement Delineation Details (Portion)

Complete design of Phase II, including final plans for Phase II, will be provided to the Contractor within 20 days after approval of the contract, provided the submittals, including the cost-break downs, have been submitted to the Engineer and approved.

Phase III shall consist of the following work:

Construction Details
Contour Grading and Drainage Plan (Remaining Portion)
Pavement Delineation and Sign Plan (Remaining Portion
Pavement Delineation Details (Remaining Portion)
Planting List
Plant Removal Plan
Planting Plan
Irrigation Plan
Irrigation Removal
Landscape Details

Complete design of Phase III, including final plans for Phase III, will be provided to the Contractor within 40 days after delivery of Phase II.

Phase IV shall consist of the following work:

Sign Details
Sound Wall Plan
Sound Wall Details
Log of Test Borings (for Sound Walls)
Lighting and Sign Illumination Fiber Optic Communication System
Ramp Metering System
Signal and Lighting (Remaining Portion)

Complete design of Phase IV, including final plans for Phase IV, will be provided to the Contractor within 100 days after delivery of Phase II.

The issuance of Phases II, III and IV shall be by change order in conformance with Section 4, "Scope of Work," of the Standard Specifications.

Project plan sheets marked, "Preliminary for Bidding Purposes Only," shall not be considered complete as to the design. These plan sheets are provided only to show the scope of the work to be performed, and shall only be used for the purpose of bid preparation.

Should the Department fail to provide the complete design, including final plans for any phase within the times specified and, in the opinion of the Engineer, the controlling operation or operations are delayed or interfered with by the delay in providing the complete design, the delay will be considered a right of way delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications. Attention is directed to "Progress Schedule (Critical Path)" of these special provisions.

5-1.06 PROJECT INFORMATION

The information in this section has been compiled specifically for this project and is made available for bidders and Contractors. Other information referenced in the Standard Specifications and these special provisions do not appear in this section. The information is subject to the conditions and limitations set forth in Section 2-1.03, "Examination of Plans, Specifications, Contract, and Site of Work," and Section 6-2, "Local Materials," of the Standard Specifications. Bidders and Contractors shall be responsible for knowing the procedures for obtaining information.

Information attached to the project plans is as follows:

A. Log of Test Borings.

Information included in the Information Handout provided to bidders and Contractors is as follows:

- A. Foundation Report for South Direct Connector UC (Widen), Br. No. 57-0804, dated April 24, 2007.
- B. Foundation Report for Felicita Road UC (Widen), Br. No. 57-0807 R/L, dated April 19, 12-09-0507-2007.
- C. Supplemental Foundation Report for Felicita Road UC (Widen), Br. No. 57-0807 R/L, dated May 14, 2007.
- D. Foundation Report for Citracado Parkway UC (Widen), Br. No. 57-0806 L/R, dated May 16, 2007.
- E. Supplement No. 1 to Seismic Design Recommendations for Citracado Parkway UC (Widen), Br. No. 57-0806 R/L, dated May 10, 2007.
- F. Foundation Report for Clarence Lane UC (Widen), Br. No. 57-0805 L/R, dated May 8, 2007.
- G. Revised Foundation Report for Clarence Lane UC (Widen), Br. No. 57-0805 L/R, dated July 17, 2007.
- H. Second Revised Foundation Report for Clarence Lane UC (Widen), Br. No. 57-0805 L/R, dated September 13, 2007.
- I. Foundation report for Ninth Avenue UC (Widen), Br. No. 57-0808 R/L, dated July 26, 2007.
- J. Addendum to the Foundation Report for Ninth Avenue UC (Widen), Br. No. 57-0808 R/L, dated October 3, 2007.
- K. Water Letter
- L. United States Fish and Wildlife Service Biological Opinion dated May 8, 2001.
- M. United States Fish and Wildlife Service Reinitiation of Biological Opinion dated January 16, 2003.
- N. United States Army Corps of Engineer superseded Section 404 Permit dated December 11, 2003.
- O. United States Army Corps of Engineer Section 404 Permit dated December 9, 2005.
- P. California Department of Fish and Game Section 1602 Agreement dated December 9, 2003.
- Q. California Department of Fish and Game Section 1602 Amendment No. 1 dated September 9, 2004.
- R. California Department of Fish and Game Section 1602 Amendment No. 2 dated April 27, 2005.
- S. California Department of Fish and Game Section 1602 Amendment No. 2 supplemental information titled: "Lake Hodges Conceptual Proposal by FCI/ Balfour Beatty JV dated March 7, 2005."
- T California Department of Fish and Game Section 1602 Amendment No. 3 supplemental information titled: "Hydraulic Modeling Report Lake Hodges I-15 by FCI/ Balfour Beatty JV dated May 17, 2005."
- U. California Department of Fish and Game Section 1602 Amendment No. 3 dated June 17, 2005.
- V. California Department of Fish and Game Section 1602 Amendment No. 3 Condition 3 supplemental information titled: "Lake Hodges Upstream Existing Conditions and Monitoring Report Amendment 3 / Condition 3 dated October 18, 2005."
- W. California Department of Fish and Game Section 1602 Amendment No. 4 dated October 11, 2005.
- X. California Department of Fish and Game Section 1602 Amendment No. 4 Condition 3 supplemental information titled: "Monitoring Plan Approval Letter Dated July 14, 2005."
- Y. California Regional Water Quality Control Board Section 401 Certification dated December 5, 2003.
- Z. California Regional Water Quality Control Board Section 401 Certification Amendment dated July 12, 2005
- AA. Seepage Analysis Lake Hodges I-15 by FCI/ Balfour Beatty JV dated November 22, 2005.
- BB. Temporary Water Pollution Control Exhibit
- CC. Materials Information Brochure, Dated May 23, 200
- DD.FReport_Soundwall #493L+rev
- EE. FReport_Soundwall #460R+rev
- FF. FReport_Soundwall #466R+rev
- GG. FReport_Soundwall #479L+rev
- HH. FReport_Soundwall #480R+rev

Information available for inspection at the District Office is as follows:

A. Cross sections

Cross sections are available in electronic copy.

The District Office in which the work is situated is located at 4050 Taylor Street, San Diego, California 92110. Plans of the existing bridges may be requested by fax from the Office of Structure Maintenance and Investigations, 1801 30th Street, Sacramento, CA, Fax (916) 227-8357, and are available at the Office of Structure Maintenance and Investigations, Los Angeles, CA, Telephone (213) 897-0877.

Plans of the existing bridges available to bidders and Contractors are reproductions of the original contract plans, with significant changes noted, and working drawings, and do not necessarily show normal construction tolerances and variances. Where dimensions of new construction required by this contract are dependent on the dimensions of the existing bridges, the Contractor shall verify the controlling field dimensions and shall be responsible for adjusting dimensions of the work to fit existing conditions.

10-1.39 EROSION CONTROL (TYPE D)

Erosion control (Type D) includes applying erosion control materials to embankment and excavation slopes and other areas disturbed by construction activities. Erosion control (Type D) must comply with Section 20-3, "Erosion Control," of the Standard Specifications and these special provisions.

Apply erosion control (Type D) when an area is ready to receive erosion control as determined by the Engineer and under "Move-in/Move-out (Erosion Control)" of these special provisions.

Before applying erosion control materials, prepare soil surface under Section 19-2.05, "Slopes," of the Standard Specifications, except that rills and gullies exceeding 50 mm in depth or width must be leveled. Remove vegetative growth, temporary erosion control materials, and other debris from areas to receive erosion control.

Before applying erosion control materials, the Engineer designates the ground location of erosion control (Type D) in increments of one hectare or smaller for smaller areas. Place stakes or other suitable markers at the locations designated by the Engineer. Furnish all tools, labor and materials required to adequately indicate the various locations.

MATERIALS

Materials must comply with Section 20-2, "Materials," of the Standard Specifications and these special provisions.

Seed

Seed must comply with Section 20-2.10, "Seed," of the Standard Specifications. Seed not required to be labeled under the California Food and Agricultural Code shall be tested for purity and germination by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists. Measure and mix individual seed species in the presence of the Engineer.

Seed must contain at most 1.0 percent total weed seed by weight.

Deliver seed to the job site in unopened separate containers with the seed tag attached. Containers without a seed tag attached are not accepted. The Engineer takes a sample of approximately 30 g or 60 ml of seed for each seed lot greater than 1 kg.

Seed must comply with the following:

Seed - (Type 1)

	2000 (1)pc 1)	
Botanical Name	Percent Germination	Kilograms Pure Live Seed Per Hectare
(Common Name)	(Minimum)	(Slope Measurement)
Eschscholzia californica *	60	25
(California Poppy)		
Lupinus succulentus *	50	25
(Arroyo Lupine)		
Lasthenia californica *	45	10
(Goldfields)		
Leymus triticoides *	40	10
(Creeping Wildrye)		

^{*}Seed produced in California only.

Seed - (Type 2)

Botanical Name (Common Name)	Percent Germination (Minimum)	Kilograms Pure Live Seed Per Hectare (Slope Measurement)
Lupinus succulentus * (Arroyo Lupine)	50	50
Lotus scoparius * (Deerweed)	35	10
Bothriochloa barbinodes* (Cane Bluestem)	15	3
Encelia californica * (Bush Sunflower)	35	3
Eschscholzia californica * (California Poppy)	60	30
Leymus triticoides * (Creeping Wildrye)	40	15

^{*}Seed produced in California only.

Seed Sampling Supplies

At the time of seed sampling, provide the Engineer a glassine lined bag and custody seal tag for each seed lot sample.

Commercial Fertilizer

Commercial fertilizer must comply with Section 20-2.02, "Commercial Fertilizer," of the Standard Specifications and have a guaranteed chemical analysis within 2 percent of 6 percent nitrogen, 20 percent phosphoric acid and 20 percent water soluble potash.

Compost

The compost producer must be fully permitted as specified under the California Integrated Waste Management Board, Local Enforcement Agencies and any other State and Local Agencies that regulate Solid Waste Facilities. If exempt from State permitting requirements, the composting facility must certify that it follows guidelines and procedures for production of compost meeting the environmental health standards of Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7.

The compost producer must be a participant in United States Composting Council's Seal of Testing Assurance program. Compost may be derived from any single, or mixture of any of the following feedstock materials:

- 1. Green material consisting of chipped, shredded, or ground vegetation; or clean processed recycled wood products
- 2. Biosolids
- 3. Manure
- 4. Mixed food waste

Compost feedstock materials to reduce weed seeds, pathogens and deleterious materials as specified under Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7, Section 17868.3

Compost must not be derived from mixed municipal solid waste and must be reasonably free of visible contaminates. Compost must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. Compost must not possess objectionable odors.

Metal concentrations in compost must not exceed the maximum metal concentrations listed in Title 14, California Code of Regulations, Division 7, Chapter 3.1, Section 17868.2.

Compost must comply with the following:

Physical/Chemical Requirements

Property	Test Method	Requirement
рН	*TMECC 04.11-A, Elastometric pH 1:5 Slurry	6.0–8.0
	Method, pH Units	0.0 0.0
Soluble Salts	TMECC 04.10-A, Electrical Conductivity 1:5 Slurry Method dS/m (mmhos/cm)	0-10.0
Moisture Content	TMECC 03.09-A, Total Solids & Moisture at 70+/- 5	N/A
0 1 16	deg C, % Wet Weight Basis	
Organic Matter Content	TMECC 05.07-A, Loss-On-Ignition Organic Matter Method (LOI), % Dry Weight Basis	30–65
	TMECC 05.05-A, Germination and Vigor	
Maturity	Seed Emergence	80 or Above
		80 or Above
	Seedling Vigor % Relative to Positive Control	80 of Above
Canbilia.	77	
Stability	TMECC 05.08-B, Carbon Dioxide Evolution Rate	8 or below
D .: 1 C:	mg CO ₂ -C/g OM per day	050/ P : 16
Particle Size	TMECC 02.02-B Sample Sieving for Aggregate Size	95% Passing 16 mm
~ .	Classification % Dry Weight Basis	70% Passing 9 mm
Pathogen	TMECC 07.01-B, Fecal Coliform Bacteria < 1000	_
	MPN/gram dry wt.	Pass
Pathogen	TMECC 07.01-B, Salmonella < 3 MPN/4 grams dry	
	wt.	Pass
Physical	TMECC 02.02-C, Man Made Inert Removal and	
Contaminants	Classification:	
	Plastic, Glass and Metal, % > 4mm fraction	Combined Total: < 1.0
Physical	TMECC 02.02-C, Man Made Inert Removal and	
Contaminants	Classification:	
	Sharps (Sewing needles, straight pins and hypodermic needles), % > 4mm fraction	None Detected

^{*}TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Before compost application, provide the Engineer with a copy of the compost producer's compost technical data sheet and a copy of the compost producers Seal of Testing Assurance certification. The compost technical data sheet includes:

- 1. Laboratory analytical test results
- 2. Directions for product use
- 3. List of product ingredients

Before compost application, provide the Engineer with a Certificate of Compliance under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

Stabilizing Emulsion

Stabilizing emulsion must comply with Section 20-2.11, "Stabilizing Emulsion," of the Standard Specifications and these special provisions.

Stabilizing emulsion:

- 1. Must be in a dry powder form
- 2. Must be a processed organic adhesive used as a soil tackifier
- 3. May be reemulsifiable

APPLICATION

Apply erosion control materials in separate applications in the following sequence:

1. Apply the following mixture with hydroseeding equipment at the rates indicated within 60 minutes after the seed has been added to the mixture:

Seed (Type 1) –FIRST APPLICATION

Material Kilograms Per Hectare			
	(Slope Measurement)		
Seed	70		
Fiber	800		

Material	Cubic Meter Per			
Hectare				
	(Slope Measurement)			
Compost	2			

Seed (Type 2) –FIRST APPLICATION

2000 (1)po 2) 1112111111111111111			
Material	Kilograms Per Hectare		
	(Slope Measurement)		
Seed	111		
Fiber	800		

Material	Cubic Meter Per		
	Hectare		
	(Slope Measurement)		
Compost	3		

- 2. Compost may be dry applied at the total of the rates specified in the preceding table and the following table instead of including it as part of the hydro-seeding operations. In areas where the compost is dry applied, all compost for that area must be applied before the next operation.
- 3. Apply the following mixture with hydro-seeding equipment at the corresponding rates:

Seed (Type 1) –SECOND APPLICATION

Seed (Type I) SEESIND INTERENTION			
Material	Kilograms Per Hectare		
	(Slope Measurement)		
Fiber	1800		
Commercial Fertilizer	25		
Stabilizing Emulsion (Solids)	200		

Material	Cubic Meter Per
	Hectare
	(Slope Measurement)
Compost	3

Seed (Type 2) –SECOND APPLICATION

2000 (1)po 2) 22001(2 111121011101)			
Material	Kilograms Per Hectare		
	(Slope Measurement)		
Fiber	1800		
Commercial Fertilizer	25		
Stabilizing Emulsion (Solids)	250		

Material	Cubic Meter Per		
	Hectare		
	(Slope Measurement)		
Compost	3		

The ratio of total water to total stabilizing emulsion in the mixture must be as recommended by the manufacturer. The Engineer may change the rates of erosion control materials to meet field conditions.

MEASUREMENT AND PAYMENT

Erosion control (Type D) will be measured by the square meter or by the hectare, whichever is designated in the Engineer's Estimate. The area will be calculated on the basis of actual or computed slope measurements.

The contract price paid per square meter or hectare for erosion control (Type D) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying erosion control (Type D) complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ALTERNATIVE CRASH CUSHION SYSTEM

Alternative crash cushion system shall be furnished and installed as shown on the plans and in conformance with these special provisions.

The allowable alternatives for a crash cushion system shall consist of one of the following or a Department approved equal.

- (1). CRASH CUSHION SYSTEM (TYPE SMART Model SCI-100GM) Crash cushion system (TypeSCI-100GM) shall be manufactured by Work Area Protection Corporation, and shall include all items detailed for a SCI-100GM system shown in the manufacturer's plans and installation instructions. The SCI-100GM crash cushion system supplied shall comply to NCHRP Report 350, Test Level 3. The SCI-100GM system can be obtained from the manufacturer, Work Area Protection Corporation, P.O. Box 4087, St.Charles, IL 60174, Phone: 630-377-9100.
- (2). CRASH CUSHION SYSTEM (TYPE TAU-II) Crash cushion system (Type TAU-II) shall be the 8-bay (Test Level 3) model TAU-II crash cushion system manufactured by Barrier Systems, Inc., and shall include all items detailed for an 8-bay (Test Level 3) model TAU-II crash cushion system shown in the manufacturer's plans and installation instructions. The 8-bay (Test Level 3) model TAU-II crash cushion system supplied shall comply to NCHRP Report 350, Test Level 3. The 8-bay (Test Level 3) model TAU-II crash cushion system can be obtained from the distributor, Statewide Safety & Signs, 522 Lindon Lane, Nipomo, CA 93444, Telephone (805) 929-5070.

Concrete anchorage devices used for attaching the SCI-100GM, TAU-II system to the concrete pad shall be limited to those which have been satisfactory tested for such application by previous testing.

The SMART (Model SCI-100GM) or TAU-II system shall be installed in accordance with the manufacturer's recommendations.

A Type R or P marker panel shall be attached to the front of the crash cushion as shown on the plans. The marker panel shall be firmly fastened to the crash cushion with commercial quality hardware or by other methods approved by the Engineer.

The concrete pad shall conform to the provisions in Section 51, "Concrete Structures," and Section 52, "Reinforcement," of the Standard Specifications and "Portland Cement Concrete" elsewhere in these special provisions.

The Contractor shall furnish to the Engineer one copy of the manufacturer's plan and parts list for each model installed.

The W-Beam connections to barrier shall conform to the provisions in Section 83 1, "Railings," of the Standard Specifications.

High strength bolts and nuts for W-Beam connections to barrier shall conform to the requirements in ASTM Designation: A 325 or A 325M and A 563 or A 563M, respectively.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The Certificate of Compliance shall certify that the crash cushion systems furnished conform to the contract plans and specifications, conform to the prequalified design and material requirements, and were manufactured in conformance with the approved quality control program.

The contract unit price paid for alternative crash cushion system shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing alternative crash cushion system, complete in place, per the manufacture's instructions, including anchor pad, excavation, backfill and disposal of surplus material, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

TERMINAL SYSTEM (TYPE CAT)

Terminal system (Type CAT) and terminal system (Type CAT) backup shall be furnished and installed as shown on the plans and in conformance with these special provisions.

Terminal system (Type CAT) shall be a CAT-350 Crash Cushion Attenuating Terminal as manufactured by Trinity Industries, Inc., and shall include items detailed for terminal system (Type CAT) shown on the plans.

Terminal system (Type CAT) backup shall consist of items detailed for terminal system (Type CAT) backup shown on the plans, and shall conform to the provisions in Section 83-1.02B, "Metal Beam Guard Railing," of the Standard Specifications.

Excluding the terminal system (Type CAT) backup, arrangements have been made to ensure that any successful bidder can obtain the CAT-350 Crash Cushion Attenuating Terminal from the manufacturer, Trinity Industries, Inc., P.O. Box 99, 950 West 400S, Centerville, UT 84014, Telephone 1-800-772-7976. The price quoted by the manufacturer for the CAT-350 Crash Cushion Attenuating Terminal, FOB Centerville, Utah is \$3500 not including sales tax.

The above price will be firm for orders placed on or before December 31, 2008, provided delivery is accepted within 90 days after the order is placed.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The Certificate of Compliance shall certify that the terminal system (Type CAT) conforms with the contract plans and specifications, conforms to the prequalified design and material requirements, and was manufactured in conformance with the approved quality control program.

The terminal system (Type CAT) shall be installed in conformance with the manufacturer's installation instructions and these requirements. The steel foundation tubes with soil plates attached shall be, at the Contractor's option, either driven, with or without pilot holes, or placed in drilled holes. Space around the steel foundation tubes shall be backfilled with selected earth, free of rock, placed in layers approximately 100 mm thick and each layer shall be moistened and thoroughly compacted. Wood posts shall be inserted into the steel foundation tubes by hand. Before the wood posts are inserted, the inside surfaces of the steel foundation tubes to receive the wood posts shall be coated with a grease which will not melt or run at a temperature of 65°C or less. The edges of the wood posts may be slightly rounded to facilitate insertion of the post into the steel foundation tubes.

Surplus excavated material remaining after the terminal system (Type CAT) and backup have been constructed shall be disposed of in a uniform manner along the adjacent roadway where designated by the Engineer.

The contract unit price paid for terminal system (Type CAT) backup shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing terminal system (Type CAT) backup, complete in place, including excavation, backfill, and disposal of surplus material, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-2.01 GENERAL

The work performed in connection with highway planting and irrigation systems shall conform to the provisions in Section 20, "Erosion Control and Highway Planting," of the Standard Specifications and these special provisions.

The Contractor shall notify the Engineer not less than 72 hours prior to requiring initial access to the existing irrigation controllers. When the Engineer determines that access to the controllers is required at other times, arrangements will be made to provide this access.

COST BREAK-DOWN

The Contractor shall furnish the Engineer a cost break-down for the contract lump sum items of highway planting and irrigation system. Cost break-down tables shall be submitted to the Engineer for approval within 15 working days after the contract has been approved. Cost break-down tables will be approved, in writing, by the Engineer before any partial payment will be made for the applicable items of highway planting and irrigation system involved.

Attention is directed to "Time-Related Overhead" of these special provisions regarding compensation for time-related overhead.

Cost break-downs shall be completed and furnished in the format shown in the samples of the cost break-downs included in this section. Line item descriptions of work shown in the samples are the minimum to be submitted. Additional line item descriptions of work may be designated by the Contractor. If the Contractor elects to designate additional line item descriptions of work, the quantity, value and amount for those line items shall be completed in the same manner as for the unit descriptions shown in the samples. The line items and quantities given in the samples are to show the manner of preparing the cost break-downs to be furnished by the Contractor.

The Contractor shall determine the quantities required to complete the work shown on the plans. The quantities and their values shall be included in the cost break-downs submitted to the Engineer for approval. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval.

The sum of the amounts for the line items of work listed in each cost break-down table for highway planting and for irrigation system work shall be equal to the contract lump sum price bid for Highway Planting and Irrigation System, respectively. Overhead and profit, except for time-related overhead, shall be included in each individual line item of work listed in a cost break-down table.

No adjustment in compensation will be made in the contract lump sum prices paid for highway planting and irrigation system due to differences between the quantities shown in the cost break-downs furnished by the Contractor and the quantities required to complete the work as shown on the plans and as specified in these special provisions.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the work and as the basis for calculating an adjustment in compensation for the contract lump sum items of highway planting and irrigation system due to changes in line items of work ordered by the Engineer. When the total of ordered changes to line items of work increases or decreases the lump sum price bid for either Highway Planting or Irrigation System by more than 25 percent, the adjustment in compensation for the applicable lump sum item will be determined in the same manner specified for increases and decreases in the total pay quantity of an item of work in Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications.

HIGHWAY PLANTING COST BREAK-DOWN

Contract No. 11-2T0814

	1	1		
		APPROXIMATE		
UNIT DESCRIPTION	UNIT	QUANTITY	VALUE	AMOUNT
ROADSIDE CLEARING	LS	LUMP SUM		
PLANT (GROUP A)	EA			
		1159		
ITEM DELETED				
ITEM DELETED				
ITEM DELETED				
COMMERCIAL FERTILIZER (PACKETS)	EA			
		2318		
IRON SULFATE	KG	128		
MULCH	M3			
		384		
SOIL AMENDMENT	M3	17		

TOTAL	

IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. 11-2T0814

		APPROXIMATE		1
UNIT DESCRIPTION	UNIT	OUANTITY	VALUE	AMOUNT
CHECK AND TEST EXISTING IRRGATION	EA	LUMP SUM	VALUE	AMOUNT
FACILITIES	EA	LUMF SUM		
REMOVE AND SALVAGE EXISTING IRRGATION	EA	LUMP SUM		
FACILITIES	LA	LOWI SOWI		
CONTROL AND NEUTRAL CONDUCTORS	LS	LUMP SUM		
CONTROL IN DATE OF THE CONDUCTORS	25	ECIVII SCIVI		
28 CHANNEL CLUSTER CONTROL UNIT (CCU)	EA	1		
,				
40 STATION IRRIGATION CONTROLLER	EA	4		
IRRIGATION CONTROLLER ENCLOSURE	EA	4		
CABINET (DOUBLE)				
50 MM RECYCLED WATER CONNECTION	EA	2		
ASSEMBLY				
75 MM RECYCLED WATER CONNECTION	EA	1		
ASSEMBLY				
25 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	2050		
COLUMN A CENT DIDE (GLIDDLALA DIE) (DD COO)	3.6	3070		
32 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	602		
40 MM DI ACTIC DIDE (GLIDDI V. I. DIE) (DD 200)	3.4	602		
40 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	175		
50 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	107		
30 MINI FLASTIC FIFE (SUFFLT LINE) (FK-200)	1V1	107		
65 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	1		
03 WINT LASTIC THE (SOFT LT LINE) (TR-200)	1V1	1		
75 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M			
75 MINITERISTIC THE (SCITET ENVE) (TR 200)	171	4435		
100 MM PLASTIC PIPE (SUPPLY LINE) (PR-200)	M	151		
75 MM BRASS PIPE	M	20		
100 MM DUCTILE IRON PIPE	M	10		
25 MM REMOTE CONTROL VALVE	EA			
		5		
40 MM REMOTE CONTROL VALVE	EA			
		6		
50 MM REMOTE CONTROL VALVE (MASTER)	EA	2		

75 MM REMOTE CONTROL VALVE (MASTER)	EA	1	
50 MM FLOW SENSOR	EA	3	
FLOW SENSOR CABLE AND CONDUIT	LS	LUMP SUM	
40 MM GATE VALVE	EA	0	
50 MM GATE VALVE	EA	10	
75 MM GATE VALVE	EA	22	
40 MM PRESSURE REDUCING VALVE	EA	5	
ITEM DELETED			
SPRINKLER (TYPE A-11)	EA	19	
SPRINKLER (TYPE C-2)	EA	1159	
ITEM DELETED			
RECYCLED WATER WARNING SIGNS	LS	LUMP SUM	

10-2.04 HIGHWAY PLANTING

The work performed in connection with highway planting shall conform to the provisions in Section 20-4, "Highway Planting," of the Standard Specifications and these special provisions.

HIGHWAY PLANTING MATERIALS

Mulch

Mulch must be wood chips.

Commercial Fertilizer (Packets)

Commercial fertilizer (packet) shall be slow or controlled release and shall be in a biodegradable packet form. The packet shall gradually release nutrients over a 12-month period. Each packet shall have a mass of $10 \text{ g} \pm 1 \text{ g}$ and shall have the following guaranteed chemical analysis:

Ingredient	Percentage	
Nitrogen	20	
Phosphoric	10	
Acid		
Water Soluble	5	
Potash		

ROADSIDE CLEARING

Prior to preparing planting areas, or commencing irrigation trenching operations for planting areas, trash and debris shall be removed from these areas and a distance of 3 m beyond the edges of those areas. At locations where proposed planting areas are 3.6 m or more from the edges of dikes, curbs, sidewalks, fences, walls, paved shoulders and existing planting to remain or to be maintained, the clearing limit shall be 2 m beyond the outer limits of the proposed planting area.

In addition to removing trash and debris, the project area shall be cleared as specified herein:

- A. Weeds shall be killed and removed within proposed mulch areas.
- B. Weeds shall be killed and removed within planting areas where plants are to be planted in groups or rows 4.6 m or less apart and from within an area extending 2 m beyond the outer limits of the groups or rows of plants.
- C. Weeds shall be killed and removed within an area 2 m in diameter centered at each plant location where the plants are to be planted more than 4.6 m apart and are located outside of ground cover areas.
- D. Weeds shall be killed and removed from within areas where portland cement concrete surfacing is to be placed.

After the initial roadside clearing is complete, additional roadside clearing work shall be performed as necessary to maintain the areas, as specified above, in a neat appearance until the start of the plant establishment period. This work shall include the following:

- A. Trash and debris shall be removed.
- B. Rodents shall be controlled.
- C. Weed growth shall be killed before the weeds reach the seed stage of growth or exceed 150 mm in length, whichever occurs first.

Weed Control

Weed control shall also conform to the following:

- A. Stolon type weeds shall be killed with glyphosate.
- B. Tumbleweeds shall be removed by hand pulling before the tumbleweeds reach a height of 150 mm.
- C. Removed weeds shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Roadside clearing work shall not include work required to be performed as clearing and grubbing as specified in Section 16, "Clearing and Grubbing," of the Standard Specifications.

PESTICIDES

Pesticides used to control weeds shall conform to the provisions in Section 20-4.026, "Pesticides," of the Standard Specifications. Except as otherwise provided in these special provisions, pesticide use shall be limited to the following materials:

Diquat Glyphosate Sethoxydim

Glyphosate shall be used to kill stolon type weeds.

If the Contractor elects to request the use of other pesticides on this project, the request shall be submitted, in writing, to the Engineer not less than 15 days prior to the intended use of the other pesticides. Except for the pesticides listed in these special provisions, no pesticides shall be used or applied without prior written approval of the Engineer.

Pesticides shall not be applied within 600 mm of the plants. Pesticides shall not be applied in a manner that allows the pesticides to come in contact with the foliage and woody parts of the plants.

PLANTING

Backfill material for plant holes shall be a mixture of soil amendment. The quantity of soil amendment shall be as shown on the Plant List. Soil amendment shall conform to the provisions in Section 20-2.03, "Soil Amendment," of the Standard Specifications. Backfill material shall be thoroughly mixed and uniformly distributed throughout the entire depth of the plant hole without clods and lumps.

Iron sulfate shall be applied or placed at the time of planting and at the rates shown on the Plant List and in conformance with the provisions in Section 20-4.05, "Planting," of the Standard Specifications and these special provisions.

Commercial fertilizer packets shall be placed in the backfill of each plant at the time of planting and at the rate shown on the Plant List to within 150 to 200 mm of the soil surface and approximately 25 mm from the roots. When more than one fertilizer packet is required per plant, the packets shall be distributed evenly around the root ball

Mulch shall be spread to a uniform depth of 75 mm.

Attention is directed to "Irrigation Systems Functional Test" of these special provisions regarding functional tests of the irrigation systems. Planting shall not be performed in an area until the functional test has been completed for the irrigation system serving that area.

PLANT ESTABLISHMENT WORK

The plant establishment period shall be Type 2 and shall not be less than 250 working days.

Attention is directed to "Relief From Maintenance and Responsibility" in these special provisions regarding relief from maintenance and protection.

During the last 30 days of the plant establishment period, the plants shall be watered utilizing the Remote Irrigation Control System (RICS) software program. A watering schedule appropriate for the season shall be submitted to the Engineer for use during the 30 day period. The watering schedule will be entered into the controllers by the Engineer. Throughout the plant establishment period, except the last 30 days, the RICS irrigation controllers shall be operated in the "stand-alone" mode.

A seasonal watering schedule shall be submitted to the Engineer in writing during the first week of March, June, September and November for use during the plant establishment period. The seasonal watering schedules shall be entered into the controllers by the Contractor.

Weeds within 600 mm of plants shall be controlled by hand pulling.

Weeds within mulched areas and outside of the 600 mm distance from plants shall be controlled by killing.

Weeds within median areas, pavement, curbs, sidewalk, and other surfaced areas shall be controlled by killing.

Weeds within erosion control (Type D), erosion control (hydraulic matrix) and erosion control (biofiltration) areas shall be killed with spot herbicide treatment before weeds reach the seed stage of growth or a height of 150 mm, whichever occurs first.

At the option of the Contractor, plants of a larger container size than those originally specified may be used for replacement plants during the first 125 working days of the plant establishment period.

After 125 working days of the plant establishment period have been completed, replacement of plants shall be No. 5 size for No. 1 size plants; and other plant replacement plants shall be the same size as originally specified.

The final inspection shall be performed in conformance with the provisions in Section 5-1.13, "Final Inspection," of the Standard Specifications and shall be completed a minimum of 20 working days before the estimated completion of the contract.

WATER METER

Water meters for the irrigation systems will be furnished and installed by the serving utility at the locations shown on the plans.

The Contractor shall make the arrangements and pay the costs and fees required by the serving utility.

The City of Escondido Water District has established a fee of \$2,550.for furnishing and installing a 50 mm water meter and \$5,000 for furnishing and installing a 75 mm water meter. If, at the time of installation, this fee has been changed, the State will take a credit for the reduction in the fee, or the State will pay the difference for the increase in the fee. The credit or payment will be taken or paid on the first monthly progress payment made after the meter is installed. The Contractor shall furnish the Engineer with a copy of the invoice for the installation fee.

Attention is directed to Section 20-4.06, "Watering," of the Standard Specifications. The Contractor shall make the arrangements for furnishing and applying water until the water meters have been installed by the serving utility.

The quantity of water meters will be measured by the unit as determined from actual count in place.

The contract unit price paid for water meter shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing water meters, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Item			Estimated	Unit Price	Item Total
Code	nem Bescription	Measure	Quantity	Clift Trice	nem rotar
070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
070018	TIME-RELATED OVERHEAD	WDAY	650		
BLANK					
BLANK					
074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
074028	TEMPORARY FIBER ROLL	M	9 900		
074032	TEMPORARY CONCRETE WASHOUT FACILITY	EA	24		
074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	17		
074035	TEMPORARY CHECK DAM	M	420		
074037	MOVE-IN/MOVE-OUT (TEMPORARY EROSION CONTROL)	EA	5		
074038	TEMPORARY DRAINAGE INLET PROTECTION	EA	89		
074040	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	M2	6150		
074041	STREET SWEEPING	LS	LUMP SUM	LUMP SUM	
074051	TEMPORARY HYDRAULIC MULCH	M2	55 600		
120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
120120	TYPE III BARRICADE	EA	55		
120150	TEMPORARY PAVEMENT MARKING	M2	98		
120199	TRAFFIC PLASTIC DRUM	EA	589		
	070012 070018 BLANK BLANK 074016 074019 074028 074032 074033 074035 074037 074038 074040 120090 120100 120120	Item Code Item Description 070012 PROGRESS SCHEDULE (CRITICAL PATH METHOD) 070018 TIME-RELATED OVERHEAD BLANK TIME-RELATED OVERHEAD 074016 CONSTRUCTION SITE MANAGEMENT 074019 PREPARE STORM WATER POLLUTION PREVENTION PLAN 074028 TEMPORARY FIBER ROLL 074032 TEMPORARY CONCRETE WASHOUT FACILITY 074033 TEMPORARY CONSTRUCTION ENTRANCE 074035 TEMPORARY CHECK DAM 074037 MOVE-IN/MOVE-OUT (TEMPORARY EROSION CONTROL) 074038 TEMPORARY DRAINAGE INLET PROTECTION 074040 TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX) 074041 STREET SWEEPING 074051 TEMPORARY HYDRAULIC MULCH 120090 CONSTRUCTION AREA SIGNS 120100 TRAFFIC CONTROL SYSTEM 120120 TYPE III BARRICADE 120150 TEMPORARY PAVEMENT MARKING	Code Measure 070012 PROGRESS SCHEDULE (CRITICAL PATH METHOD) 070018 TIME-RELATED OVERHEAD BLANK WDAY BLANK WDAY 074016 CONSTRUCTION SITE MANAGEMENT LS 074019 PREPARE STORM WATER POLLUTION PREVENTION PLAN LS 074028 TEMPORARY FIBER ROLL M 074032 TEMPORARY CONCRETE WASHOUT FACILITY EA 074033 TEMPORARY CONSTRUCTION EA EA 074035 TEMPORARY CHECK DAM M 074037 MOVE-IN/MOVE-OUT (TEMPORARY EA EA 074038 TEMPORARY DRAINAGE INLET PROTECTION EA 074040 TEMPORARY HYDRAULIC MULCH M2 M2 074041 STREET SWEEPING LS 074051 TEMPORARY HYDRAULIC MULCH M2 LS 120090 CONSTRUCTION AREA SIGNS LS 120100 TRAFFIC CONTROL SYSTEM LS 120120 TYPE III BARRICADE EA	Item Item Description Unit of Measure Quantity	

	11-2	10014			
Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
120300	TEMPORARY PAVEMENT MARKER	EA	8850		
128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	20		
129000	TEMPORARY RAILING (TYPE K)	M	20 200		
129100	TEMPORARY CRASH CUSHION MODULE	EA	330		
129101	TEMPORARY CRASH CUSHION (ABSORB-350)	EA	12		
150206	ABANDON CULVERT	EA	7		
014701	ABANDON IRRIGATION CROSSOVER	EA	33		
150221	ABANDON INLET	EA	1		
150227	ABANDON PIPELINE	EA	1		
150608	REMOVE CHAIN LINK FENCE	M	1100		
BLANK					
BLANK					
150656	REMOVE CABLE BARRIER	M	3590		
150658	REMOVE CABLE ANCHOR ASSEMBLY	EA	12		
150662	REMOVE METAL BEAM GUARD RAILING	M	415		
150665	REMOVE SINGLE METAL BEAM BARRIER	M	600		
150667	REMOVE DOUBLE METAL BEAM BARRIER	M	89		
150710	REMOVE TRAFFIC STRIPE	M	61 300		
150713	REMOVE PAVEMENT MARKING	M2	66		
150730	REMOVE CHANNELIZERS	EA	190		
	Code 120300 128650 129000 129100 129101 150206 014701 150221 150227 150608 BLANK BLANK 150656 150665 150667 150710	Item CodeItem Description120300TEMPORARY PAVEMENT MARKER128650PORTABLE CHANGEABLE MESSAGE SIGN129000TEMPORARY RAILING (TYPE K)129100TEMPORARY CRASH CUSHION MODULE129101TEMPORARY CRASH CUSHION (ABSORB-350)150206ABANDON CULVERT014701ABANDON IRRIGATION CROSSOVER150221ABANDON INLET150227ABANDON PIPELINE150608REMOVE CHAIN LINK FENCEBLANKBLANK150656REMOVE CABLE BARRIER150657REMOVE METAL BEAM GUARD RAILING150667REMOVE DOUBLE METAL BEAM BARRIER150710REMOVE TRAFFIC STRIPE150713REMOVE PAVEMENT MARKING	Code Measure 120300 TEMPORARY PAVEMENT MARKER EA 128650 PORTABLE CHANGEABLE MESSAGE EA EA 129000 TEMPORARY RAILING (TYPE K) M 129100 TEMPORARY CRASH CUSHION MODULE EA 129101 TEMPORARY CRASH CUSHION (ABSORB-350) EA 150206 ABANDON CULVERT EA 014701 ABANDON IRRIGATION EA EA 150221 ABANDON INLET EA 150227 ABANDON PIPELINE EA 150608 REMOVE CHAIN LINK FENCE M BLANK BLANK M 150656 REMOVE CABLE BARRIER M 150657 REMOVE CABLE ANCHOR ASSEMBLY EA 150662 REMOVE METAL BEAM GUARD ARILING M 150665 REMOVE SINGLE METAL BEAM BARRIER M 150667 REMOVE DOUBLE METAL BEAM BARRIER M 150710 REMOVE TRAFFIC STRIPE M 150713 REMOVE PAVEMENT MARKING M2	Rem	Rem

			T0814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	150742	REMOVE ROADSIDE SIGN	EA	19		
42 (S)	150760	REMOVE SIGN STRUCTURE	EA	11		
43	150805	REMOVE CULVERT	M	230		
44	150820	REMOVE INLET	EA	4		
45	150860	REMOVE BASE AND SURFACING	M3	1250		
46	152320	RESET ROADSIDE SIGN	EA	8		
47	152390	RELOCATE ROADSIDE SIGN	EA	19		
48 (S)	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	M2	11 100		
49	014704	REMOVE CONCRETE (DITCH)	M3	7		
50	153229	REMOVE CONCRETE BARRIER (TYPE K)	M	7350		
51	153235	CLEAN BRIDGE DECK	M2	3095		
52	155003	CAP INLET	EA	8		
53	155006	CAP RISER	EA	1		
54 (S)	156590	REMOVE CRASH CUSHION (SAND FILLED)	EA	1		
55	BLANK					
56	157561	BRIDGE REMOVAL (PORTION), LOCATION A	LS	LUMP SUM	LUMP SUM	
57	157562	BRIDGE REMOVAL (PORTION), LOCATION B	LS	LUMP SUM	LUMP SUM	
58	157563	BRIDGE REMOVAL (PORTION), LOCATION C	LS	LUMP SUM	LUMP SUM	
59	157564	BRIDGE REMOVAL (PORTION), LOCATION D	LS	LUMP SUM	LUMP SUM	
60	157565	BRIDGE REMOVAL (PORTION), LOCATION E	LS	LUMP SUM	LUMP SUM	

			10814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
62	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
63	190101	ROADWAY EXCAVATION	M3	145 000		
64	BLANK					
65 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	1460		
66 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	M3	1090		
67 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	7540		
68 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	1876		
69 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	7220		
70 (F)	193030	PERVIOUS BACKFILL MATERIAL	M3	70		
71 (F)	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	M3	575		
72	193114	SAND BACKFILL	M3	150		
73	194001	DITCH EXCAVATION	M3	70		
74 (S)	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	
75	200101	IMPORTED TOPSOIL	M3	1610		
76	202007	DUFF	M2	53 200		
77 (S)	014706	EROSION CONTROL (BIOFILTRATION)	M2	310		
78 (S)	203016	EROSION CONTROL (TYPE D)	M2	65 800		
79 (S)	203017	EROSION CONTROL (HYDRAULIC MATRIX)	M2	11 900		
80	203021	FIBER ROLLS	M	11 500		

			10814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (S)	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	5		
82	BLANK					
83 (S)	204099	PLANT ESTABLISHMENT WORK	LS	LUMP SUM	LUMP SUM	
84 (S)	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
85	208039	NPS 4 SUPPLY LINE (BRIDGE)	M	321		
86 (S)	014707	50 MM WATER METER	EA	2		
87 (S)	014708	75 MM WATER METER	EA	1		
88	014709	200 MM PLASTIC PIPE, SCHEDULE 40	M	7		
89 (S)	208732	250 MM CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	M	730		
90 (S)	208798	200 MM WELDED STEEL PIPE CONDUIT (6.35 MM THICK)	M	310		
91 (S)	208799	250 MM WELDED STEEL PIPE CONDUIT (6.35 MM THICK)	M	31		
92	220101	FINISHING ROADWAY	LS	LUMP SUM	LUMP SUM	
93	260201	CLASS 2 AGGREGATE BASE	M3	32 900		
94	260210	AGGREGATE BASE (APPROACH SLAB)	M3	7		
95	374002	ASPHALTIC EMULSION (FOG SEAL COAT)	TONN	9		
96	390131	HOT MIX ASPHALT	TONN	40 700		
97	394071	PLACE HOT MIX ASPHALT DIKE	M	2620		
98	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	M2	86		
99	397005	TACK COAT	TONN	110		
100	401000	CONCRETE PAVEMENT	M3	22 600		

			10014			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121 (F)	510126	CLASS 2 CONCRETE (MINOR STRUCTURE)	M3	27		
122 (F)	510408	CLASS 1 CONCRETE (RETAINING WALL)	M3	1883		
123 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	100		
124 (F)	510524	MINOR CONCRETE (SOUND WALL)	M3	704		
125	510800	PAVING NOTCH EXTENSION	M3	1		
126 (F)	511036	ARCHITECTURAL SURFACE (BARRIER)	M2	426		
127 (F)	014710	ARCHITECTURAL SURFACE (BARRIER TILE TEXTURE)	M2	184		
128 (F)	041490	SWIRLED PLASTER TEXTURE	M2	2187		
129 (F)	041491	BUTTRESS KEY TEXTURE	M2	2		
130	511106	DRILL AND BOND DOWEL	M	149		
131 (S)	512240	FURNISH PRECAST PRESTRESSED CONCRETE BOX GIRDER (20 M - 25 M)	EA	2		
132 (S)	512502	ERECT PRECAST PRESTRESSED CONCRETE BOX GIRDER	EA	2		
133 (S)	515075	CORE CONCRETE (151 MM - 200 MM)	M	1		
134 (S-F)	518002	SOUND WALL (MASONRY BLOCK)	M2	6371		
135 (S-F)	518010	ACCESS GATE (SOUND WALL)	EA	3		
136 (S)	519117	JOINT SEAL (MR 30 MM)	M	50		
137 (S)	519142	JOINT SEAL (MR 40 MM)	M	41		
138 (S)	519144	JOINT SEAL (MR 50 MM)	M	101		
139 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	KG	799 050		
140 (S-F)	520103	BAR REINFORCING STEEL (RETAINING WALL)	KG	179 124		

		11-2	10814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141 (S-F)	520120	HEADED BAR REINFORCEMENT	EA	1180		
142 (S-F)	540101	ASPHALT MEMBRANE WATERPROOFING	M2	60		
143 (F)	540102	TREAT BRIDGE DECK	M2	3095		
144	540108	FURNISH BRIDGE DECK TREATMENT MATERIAL	L	1410		
145 (S-F)	550110	COLUMN CASING	KG	20 200		
146 (F)	560208	FURNISH SIGN STRUCTURE (TUBULAR)	KG	119 385		
147 (S-F)	560209	INSTALL SIGN STRUCTURE (TUBULAR)	KG	119 385		
148	BLANK					
149	BLANK					
150 (F)	560223	FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITHOUT WALKWAY)	KG	3000		
151 (S-F)	560224	INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITHOUT WALKWAY)	KG	3000		
152	560234	FURNISH LAMINATED PANEL SIGN (25.4 MM-TYPE A)	M2	280		
153	560238	FURNISH SINGLE SHEET ALUMINUM SIGN (1.6 MM-UNFRAMED)	M2	30		
154	560239	FURNISH SINGLE SHEET ALUMINUM SIGN (2.0 MM-UNFRAMED)	M2	58		
155	560241	FURNISH SINGLE SHEET ALUMINUM SIGN (1.6 MM-FRAMED)	M2	4		
156	560242	FURNISH SINGLE SHEET ALUMINUM SIGN (2.0 MM-FRAMED)	M2	26		
157 (S)	561015	1524 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	161		
158	562004	METAL (RAIL MOUNTED SIGN)	KG	2000		
159	566011	ROADSIDE SIGN - ONE POST	EA	14		
160	566012	ROADSIDE SIGN - TWO POST	EA	2		
	<u> </u>		1			1

		11-2	10814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161	014711	ROADSIDE SIGN - ONE POST (WITH WEED MAT)	EA	7		
162	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	9		
163 (S-F)	014712	INSTALL SIGN PANEL ON EXISTING SIGN STRUCTURE	M2	38		
164	568017	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST	EA	16		
165	650067	300 MM REINFORCED CONCRETE PIPE	M	3.5		
166	650069	450 MM REINFORCED CONCRETE PIPE	M	220		
167	650075	600 MM REINFORCED CONCRETE PIPE	M	680		
168	650077	750 MM REINFORCED CONCRETE PIPE	M	2		
169	650079	900 MM REINFORCED CONCRETE PIPE	M	470		
170	650084	1200 MM REINFORCED CONCRETE PIPE	М	60		
171	650089	1500 MM REINFORCED CONCRETE PIPE	M	200		
172	680272	100 MM PLASTIC PIPE UNDERDRAIN	M	250		
173	014713	100 MM PERFORATED PIPE UNDERDRAIN	M	2460		
174	690277	450 MM BITUMINOUS COATED CORRUGATED STEEL PIPE DOWNDRAIN (2.77 MM THICK)	M	72		
175	690281	600 MM BITUMINOUS COATED CORRUGATED STEEL PIPE DOWNDRAIN (2.77 MM THICK)	M	110		
176	700617	DRAINAGE INLET MARKER	EA	3		
177	700857	900 MM BITUMINOUS COATED CORRUGATED STEEL PIPE INLET (2.01 MM THICK)	M	2		
178	703233	GRATED LINE DRAIN	M	11		
179	BLANK					
180	208420	BACKFLOW PREVENTER ASSEMBLY	EA	1		

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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181	014714	200 MM POLYVINYL CHLORIDE PIPE CLASS 200	M	350		
182	014715	100 MM BLOWOFF ASSEMBLY	EA	2		
183	014716	JACKED 900 MM WELDED STEEL PIPE (50 MM THICK)	M	86		
184	014717	450 MM CEMENT MORTER LINED AND COATED WELDED STEEL PIPE	M	93		
185	707133	900 MM PRECAST CONCRETE PIPE INLET	M	10		
186	707135	1200 MM PRECAST CONCRETE PIPE INLET	M	2.4		
187	707471	900 MM PRECAST CONCRETE PIPE RISER	M	7		
188	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	M3	4.1		
189	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	M3	9		
190	BLANK					
191	BLANK					
192	BLANK					
193 (F)	041492	SLOPE PAVING (CONCRETE) (SPLIT FACED VENEER)	M2	5772		
194 (F)	041493	SLOPE PAVING (ROCK COBBLE)	M2	320		
195	727901	MINOR CONCRETE (DITCH LINING)	M3	158		
196	727902	MINOR CONCRETE (SLOPE PROTECTION)	M3	190		
197	729010	ROCK SLOPE PROTECTION FABRIC	M2	40		
198	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	M3	40		
199	014718	MINOR CONCRETE (STRESS REDUCING SLAB)	M3	88		
200	731530	MINOR CONCRETE (TEXTURED PAVING)	M2	2240		

			10014			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
201 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	10 950		
202 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	900		
203 (S-F)	750505	BRIDGE DECK DRAINAGE SYSTEM	KG	4520		
204	014719	TUNNEL FIRE PROTECTION	LS	LUMP SUM	LUMP SUM	
205 (S)	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	34		
206 (S)	802585	1.2 M CHAIN LINK GATE (TYPE CL-1.8)	EA	1		
207	820107	DELINEATOR (CLASS 1)	EA	25		
208	820110	MILEPOST MARKER	EA	4		
209	820118	GUARD RAILING DELINEATOR	EA	42		
210 (S)	832001	METAL BEAM GUARD RAILING	M	160		
211 (S)	839521	CABLE RAILING	M	103		
212 (S)	839541	TRANSITION RAILING (TYPE WB)	EA	10		
213 (S)	839566	TERMINAL SYSTEM (TYPE CAT)	EA	1		
214 (S)	839567	TERMINAL SYSTEM (TYPE CAT) BACKUP	EA	1		
215 (S)	839581	END ANCHOR ASSEMBLY (TYPE SFT)	EA	4		
216 (S)	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	6		
217 (S)	839585	ALTERNATIVE FLARED TERMINAL SYSTEM	EA	4		
218 (S)	014720	ALTERNATIVE CRASH CUSHION SYSTEM	EA	1		
219 (F)	041494	CONCRETE BARRIER (TYPE 60AR MODIFIED)	M	79		
220	014721	CONCRETE BARRIER (TYPE 60 MODIFIED)	M	2260		

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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
221	839701	CONCRETE BARRIER (TYPE 60)	M	5400		
222	839703	CONCRETE BARRIER (TYPE 60C)	M	800		
223	839705	CONCRETE BARRIER (TYPE 60E)	M	640		
224	014722	CONCRETE BARRIER (TYPE 60G MODIFIED)	M	203		
225	014723	CONCRETE BARRIER (TYPE 736A MODIFIED)	M	420		
226 (F)	839725	CONCRETE BARRIER (TYPE 736)	M	198		
227 (F)	839727	CONCRETE BARRIER (TYPE 736 MODIFIED)	M	441		
228	014724	CONCRETE BARRIER (TYPE 736B MODIFIED)	M	38		
229 (F)	041495	CONCRETE BARRIER (TYPE 736A MODIFIED)	M	81		
230 (F)	041496	CONCRETE BARRIER (TYPE 736R MODIFIED)	M	388		
231 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	M2	310		
232	BLANK					
233 (S)	840561	100 MM THERMOPLASTIC TRAFFIC STRIPE	M	36 400		
234 (S)	840563	200 MM THERMOPLASTIC TRAFFIC STRIPE	M	1640		
235 (S)	840564	200 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 3.66 M - 0.92 M)	M	830		
236 (S)	840571	100 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 5.18 M - 2.14 M)	M	240		
237 (S)	840655	PAINT TRAFFIC STRIPE (1-COAT)	M	48 000		
238 (S)	840656	PAINT TRAFFIC STRIPE (2-COAT)	M	108 000		
239 (S)	850101	PAVEMENT MARKER (NON- REFLECTIVE)	EA	19 000		
240 (S)	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	11 000		

			T0814			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
241 (S)	860090	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	LUMP SUM	LUMP SUM	
242 (S)	860201	SIGNAL AND LIGHTING	LS	LUMP SUM	LUMP SUM	
243 (S)	014726	TEMPORARY LIGHTING	LS	LUMP SUM	LUMP SUM	
244 (S)	860402	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
245 (S)	860420	LIGHTING (TUNNEL)	LS	LUMP SUM	LUMP SUM	
246 (S)	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
247 (S)	860530	CHANGEABLE MESSAGE SIGN SYSTEM	LS	LUMP SUM	LUMP SUM	
248 (S)	860796	SPRINKLER CONTROL CONDUIT (BRIDGE)	M	700		
249 (S)	860931	TRAFFIC MONITORING STATION (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
250 (S)	860932	TRAFFIC MONITORING STATION (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
251 (S)	014727	TEMPORARY TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
252 (S)	014728	FIBER OPTIC COMMUNICATION SYSTEM	LS	LUMP SUM	LUMP SUM	
253	BLANK					
254	BLANK					
255 (S)	861101	RAMP METERING SYSTEM (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
256 (S)	861102	RAMP METERING SYSTEM (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
257 (S)	861103	RAMP METERING SYSTEM (LOCATION 3)	LS	LUMP SUM	LUMP SUM	
258 (S)	861104	RAMP METERING SYSTEM (LOCATION 4)	LS	LUMP SUM	LUMP SUM	
259 (S)	014731	TEMPORARY RAMP METERING SYSTEM (LOC 1)	LS	LUMP SUM	LUMP SUM	
260 (S)	014732	TEMPORARY RAMP METERING SYSTEM (LOC 2)	LS	LUMP SUM	LUMP SUM	

Item	Item	Item Description	Unit of	Estimated	Unit Price	Item Total
No.	Code		Measure	Quantity		
261 (S)	014733	TEMPORARY RAMP METERING SYSTEM (LOC 3)	LS	LUMP SUM	LUMP SUM	
262 (S)	993002	FIRE HYDRANT	EA	2		
263	BLANK					
264 (F)	560213	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	KG	30 000		
265 (F)	560214	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	KG	30 000		
266	561009	920 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	15		
267	703369	900 MM BITUMINOUS COATED CORRUGATED STEEL PIPE RISER (2.01 MM THICK)	M	9		
268	015243	CONCRETE BARRIER (TYPE 60R1)	M	25		
269	015244	200 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 5.5 M- 3.50 M)	M	860		
270	015245	TEMPORARY CLOSED CIRCUIT TELEVISION (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
271	015246	TEMPORARY CLOSED CIRCUIT TELEVISION (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
272	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID:
